

# **TITLE 329 SOLID WASTE MANAGEMENT BOARD**

**#05-85(SWMB)**

## **SUMMARY/RESPONSE TO COMMENTS FROM THE SECOND COMMENT PERIOD**

The Indiana Department of Environmental Management (IDEM) requested public comment from June 1, 2005, through July 1, 2005, on IDEM's draft rule language. IDEM received comments from the following parties:

Lenora Strohm, Staff Environmental Engineer, Worldwide Facilities Group, General Motors Corporation (GM)

Terry Behrman, Manager, Environmental Affairs, Alliance of Automobile Manufacturers (AAM)

Following is a summary of the comments received and IDEM's responses thereto:

Comment: In the "Background" - Delisting Process Section, IDEM definitively states, "No other state recognizes Indiana's delisting authority." However, GM believes that another authorized state may make a delisting decision based upon IDEM's evaluation of this petition. It is GM's opinion that EPA [U.S. Environmental Protection Agency] and other states may accept Indiana's delisting decision at their own discretion and that it is not necessary for IDEM to make such a declaration in this rule. Therefore, GM respectfully requests that IDEM remove this specific language prior to final publication of the rule. (GM)(AAM)

Response: While this comment is not directed to the published draft rule language itself, IDEM feels it would be helpful to respond to correct certain misunderstandings about the delisting process and Indiana's authority to delist a listed hazardous waste.

Indiana was authorized by EPA to delist a hazardous waste on January 4, 2001 (66 FR 733). Indiana is authorized to delist wastes generated in Indiana, in lieu of federal delisting, if the generator meets the requirements of 40 CFR 260.22. When a waste delisted under Indiana rules crosses state lines, it is subject to the hazardous waste program effective in that state. If that waste has not been delisted by that state or by EPA, it is a hazardous waste in that state.

Among the requirements for a state authorized for delisting is the responsibility to evaluate a petition on its merits. For IDEM to accept another state's delisting decision on its face, without evaluating a petition as suggested by the commentor, would violate 40 CFR 260.22 and 329 IAC 3.1-5-2 and would also violate RCRA section 3006 by operating a hazardous waste program that is not equivalent to the federal hazardous waste program.

The statement referred to by the commentor is a statement of fact and is not part of the rule. The statement does not affect the actual rule language or the effectiveness of the delisting. While the statement is part of the record of this rulemaking, it will not appear in the final rule unless the rule language is amended to include the statement.

Comment: Quarterly Sampling - 329 IAC 3.1-6-7(2)(A) - The proposed delisting conditions require GM to collect and analyze two representative samples each quarter for the constituents listed in Table 2. This requirement is at least twice as onerous as those imposed by EPA and other states that have granted delisting petitions for this waste stream. GM requests that IDEM reduce this requirement to one sample per quarter for the first year, and then reduce this requirement to annual sampling and analysis following four quarters of successful sampling. As presented in the delisting petition, the process generating this waste stream is consistent, the waste is "hazardous" solely due to the use of aluminum, and the waste does not exhibit any characteristic of a hazardous waste. The additional sampling requirement adds to the cost of demonstrating compliance with the delisting conditions without providing additional environmental benefit. (GM)(AAM)

Response: The total amount of waste delisted under this rule would fill approximately 150 twenty-cubic yard roll-off containers. Quarterly sampling will sample four of these each year, or about 2.67% of the containers. Annual sampling would sample one of these containers each year, or about 0.67% of the containers. GM's petition covered a six week period of sampling. This sampling was conducted using duplicate samples and showed some variability in the waste. EPA has indicated that these delisted wastes at other automobile manufacturing facilities have shown significant variability over time. Quarterly testing is consistent with other similar delistings by EPA. IDEM does not believe that annual sampling is adequate to maintain reasonable oversight of this deregulated waste stream. Two samples per quarter will provide a reasonable level of assurance that variability in the waste will remain consistent over a longer period of time. However, IDEM has added a provision for GM to reduce sampling from two samples per quarter to one sample per quarter if the samples show a reasonable level of consistency over time.

Comment: Quality Assurance/Quality Control Requirements - 329 IAC 3.1-6-7(2)(A)(i) - IDEM states that "...tin must be extracted using SW-846 Method 1330A, Oily Waste Extraction Procedure" (OWEP). In the petition GM submitted to IDEM, and in previous delistings in other states, we have followed EPA's guidance (see EPA RCRA Delisting Program Guidance Manual for the Petitioner, March 23, 2000 at §6.1, Exhibit 2) which states that if the oil and grease (O&G) levels in the waste exceed 10,000 mg/kg then the petitioner would use the the OWEP for metals. For consistency purposes we request that

IDEM indicate that the OWEP is to be used if the total O&G levels exceed 1%.  
(GM)(AAM)

Response: IDEM has modified the draft rule to require use of Method 1330A if oil and grease levels exceed 10,000 mg/kg.

Comment: Quality Assurance/Quality Control Requirements - 329 IAC 3.1-6-7(2)(C) - This proposed delisting condition requires GM to "comply with Chapter 1, "Quality Control" of SW-846. Also, the "Proposed Conditions for Exclusion", item 3, states that the same level of analytical quality control used in the petition must be used in the quarterly verification analysis. The reference to Chapter 1 of SW-846 (Proposed 329 IAC 3.1-6-7(2)(C)), at its most rigid, would require GM to have a fully defined Sampling and Analysis plan for quarterly sampling. GM requests IDEM to modify this requirement as follows:

"GM will perform all of the sample management tasks associated with the quarterly monitoring in accordance with standard industry practices." (GM)(AAM)

Response: "Test Methods for Evaluating Solid Wastes, Physical/Chemical methods," U.S. Environmental Protection Agency Publication SW-846, Third Edition, as amended by Updates I, IIA, IIB, III, and IIA, commonly referred to as "SW-846," contains several levels of quality control standards that are required if the results of testing using SW-846 methods are to be accepted as valid, that is, having known accuracy and precision. Chapter 1, "Quality Control," contains general quality control requirements for all SW-846 methods when used for RCRA compliance purposes. In addition, each series of methods contains generalized quality control procedures for methods in that series. Finally, each SW-846 method contains method-specific quality control requirements that must be followed for the data resulting from use of that method to be considered valid. Chapter 2, "Choosing the Correct Procedure," provides additional guidance on the application of quality control procedures. The following quote from Chapter 2 is helpful in understanding these relationships:

#### "2.1.3 Quality Control Criteria Precedence

Chapter One contains general quality control (QC) guidance for analyses using SW-846 methods. QC guidance specific to a given analytical technique (e.g., extraction, cleanup, sample introduction, or analysis) may be found in Methods 3500, 3600, 5000, 7000, and 8000. Method specific QC criteria may be found in Sec. 8.0 of each individual method (or in Sec. 11.0 of air sampling methods). When inconsistencies exist between the information in these locations, method specific QC criteria take precedence over both technique-specific criteria and those criteria given in Chapter One, and technique-specific QC criteria take precedence over the criteria in Chapter One."

QA/QC procedures are a means of assuring that data is valid and should be accepted by another party, such as IDEM. Failure to follow proper QA/QC procedures results in having data rejected. For consistency, GM should continue to use the sampling and

analysis plan and QA/QC procedures that were used in preparing the petition, instead of preparing a new plan.

SW-846 is compiled from standard industry practices and methods and is the "standard industry practice" for RCRA analyses. The commentor's suggested language does not provide an ascertainable standard and cannot be adopted.

Comment: Compliance Demonstration with Table A and Table 1 Delisting Levels - 329 IAC 3.1-6-7(2)(D) - This requirement states that GM "shall ensure that no constituent that is in Table 1 that is not subject to quarterly testing exceeds the delisting level for that constituent listed in Table 1." The proposal also states in the "Proposed Conditions for Exclusion", Item 1, "the delisted waste must not exceed any of the delisting concentrations for constituents of concern listed in Table A..." These requirements, stated differently but being the same, are discussed in two separate portions of the proposal and create a significant compliance demonstration problem for GM.

In addition, the requirement is further exacerbated by item (3) of the "Proposed Conditions for Exclusion", which begins by stating "GM must demonstrate on a quarterly basis that the constituents detected in the initial analysis are below the delisting levels in Table 1 of the draft rule". This section proceeds to detail how the sample will be taken, and then states that the sample extracts are to be analyzed for the constituents listed in Table 2. This section ends with the statement, "General Motors must also ensure that the remaining constituents listed in Table 1 of the draft rule, for which quarterly testing is not required, do not exceed the delisting levels". As proposed, this creates an unachievable compliance demonstration for Table 1 constituents that are not listed in Table 2.

IDEM intentionally developed the Table 2 list of constituents; it is a subset of Table A/Table 1 and is meant to reflect those constituents most likely to occur in a waste stream at detectable levels. This subset, Table 2, was developed based upon an extensive analysis of the information provided in the delisting petition. The specific purpose of developing this targeted, or reduced, list of constituents was to minimize unnecessary sampling and testing. The intent of addressing the Table A/Table 1 constituents is achieved through the testing of Table 2 constituents coupled with the other conditions addressing changes in operating conditions. Therefore, as proposed, the requirement to "ensure" that the Table A/Table 1 constituents are not exceeded is inconsistent with the intent of developing the list of Table 2 constituents to reduce testing. Further, it would be extremely difficult to demonstrate compliance with the requirement to "ensure" that the delisting levels for the entire Table A/Table 1 constituents are met without sampling and testing for each of those constituents.

The requirement to ensure that Table A/Table 1 delisting levels are not exceeded, yet only requiring testing for a subset of those constituents, creates a compliance issue. The process involved in preparing the delisting petition has demonstrated that the compounds included in Table A/Table 1 but not in Table 2 are not present in the sludge; GM assumes that they are not present unless a process change or other information indicates that these compounds may now appear in the sludge.

Therefore, for all of the reasons above, GM requests that any "demonstration" or "assurance" that the waste stream does not exceed the Table 1 or Table A delisting levels be removed from the proposal. (GM)(AAM)

Response: This comment addresses the background information as well as the draft rule language. The background information is provided to allow the public to see the petition review process and understand the basis for the requirements in the draft rule. This response will only deal with the portion of the comment that deals with the draft rule language.

40 CFR 260.22 requires states which are authorized to delist hazardous waste in lieu of EPA to consider all of the factors listed in 40 CFR 260.22. This requires IDEM to consider hazardous constituents in addition to the constituents for which the waste was originally listed. This requirement complies with section 3001(f) of RCRA and was added in response to Congressional concerns about EPA's early delisting activities. [See the discussion at "F. Delisting Procedures," 50 FR 28727, July 15, 1985.] Where the waste is a mixture of a solid waste and a listed hazardous waste, the analysis must consider the waste stream as a whole, including factors that could cause the waste mixture to be a hazardous waste. As a result, the proposed list of constituents in proposed 329 IAC 3.1-6-7(1), Table 1 is large.

Table 1 lists the constituents that both IDEM and GM reasonably believe could be found in this waste stream. In its delisting petition, GM has assured the department that the constituents listed in Table 1 that are not also listed in Table 2 do not occur in this waste stream. IDEM has analyzed the petition and agrees with GM's assertion. In addition, GM maintains internal processes that allow it to be aware of every chemical constituent introduced into plant processes and potentially into the wastewater treatment sludge. The general requirement proposed in 329 IAC 3.1-6-7(1) that no constituent exceed its delisting level is intended to create a duty for GM to pay attention to the levels of all hazardous constituents they introduce into the waste stream using existing information.

To reduce testing requirements, we have only proposed to require quarterly testing for constituents that were actually found in the waste during the analysis used to develop the petition. These constituents are listed in Table 2

The requirement to act on this information is contained in the proposed 329 IAC 3.1-6-7(3), which requires GM to notify IDEM if at any time they become aware that constituents listed in Table 1 are higher than the delisting levels.

GM has already demonstrated that the constituents listed in Table 1 but not included in Table 2 were not detected during the analysis for the petition and has expressed confidence in that information. As an environmentally responsible entity, GM may use its discretion as to how and when to track the levels of these constituents during the life of the delisting. GM has made a demonstration that all constituents are below delisting levels, and this requirement is only intended to ensure that GM continues to use its

initiative to maintain these levels in this waste stream as demonstrated, without additional regulatory requirements.

Because the proposed rule does not contain a requirement for "demonstration" or "assurance" for constituents in Table 1 that are not also listed in Table 2, this comment cannot be adopted.

Comment: Delisting Levels Below Detection Levels - Delisting levels that are below the detection limit of current methods have been included in Table 1 for hexachlorobenzene and pentachlorophenol. (GM)(AAM)

Response: GM is not required to conduct quarterly testing for these substances, so the issue of detection limits for these substances will rarely if ever arise. SW-846 and IDEM guidance contain adequate guidance to select an analytical method with detection limits that are lower than the proposed delisting levels.

Comment: Process and Chemical Changes - 329 IAC 3.1-6-7(4)(A) - This proposed rule requires that GM notify the department in writing if there is a change in the aluminum coating process or in the chemicals used in the aluminum coating process other than those described in the petition for delisting. GM must also notify the department if there are other changes in the facility that could cause hazardous constituents listed in 40 CFR 261, Appendix VIII that are not listed in Table 2 to be introduced into the plant's wastewater treatment system. GM requests that these requirements be modified to appropriately identify changes in operations that would result in a significant change to the waste stream.

The aluminum coating process is designed to consistently operate as described in the delisting petition, however, insignificant day-to-day operational changes may occur. Examples might be (1) slight modifications to the treatment chemicals used due to wastewater volume fluctuations, or (2) modifications to the process chemicals due to changes in suppliers. These types of changes would not cause a significant change in the waste stream. GM believes that it is appropriate to regulate the resulting waste stream rather than the manufacturing process itself.

Further, it would be infeasible, if not impossible, to monitor every chemical used in the assembly plant on an ongoing basis for constituents that may simply be "introduced" into the wastewater treatment system in any concentration at any given moment that do not affect the waste stream in any significant way. GM believes that this requirement is overly onerous, inappropriate relative to the non-hazardous characteristics of this waste stream, and makes compliance with this provision impossible. Besides, the language in 329 IAC 3.1-6-7(4)(A)(ii) requires GM to demonstrate that no new hazardous constituents listed in 40 CFR 261, Appendix VIII have been introduced after it had been determined that a significant change has occurred.

Therefore, GM requests IDEM to replace the language in 329 IAC 3.1-6-7(4)(A)(i) and (ii) with the following:

"329 IAC 3.1-6-7(4)(A) Changes in Operating Conditions: The facility must notify IDEM in writing if the manufacturing process or the chemicals used in the manufacturing process significantly change and cause the delisting levels in Table 2 to be exceeded."

It is GM's opinion that this revision will not alleviate GM's obligation to monitor its operations for significant changes that may cause the waste to exceed the delisting criteria. Further, nothing in the delisting affects GM's ongoing obligation to ensure that the wastewater treatment sludge is not hazardous under other RCRA provisions.  
(GM)(AAM)

Response: Indiana law and administrative rules drafting standards prohibit use of such terms as "significant" and require use of ascertainable standards. While EPA F019 delisting rules routinely use the term "significant," Indiana rules must provide real, definable thresholds and ascertainable standards. The referenced requirement was carefully written to provide a specific, ascertainable threshold for a change that would trigger a requirement for GM to notify IDEM.

A change that causes a constituent to exceed a delisting level is a significant change, and we have modified 329 IAC 3.1-6-7(3) of the draft rule to use that threshold.

Comment: Potential Errors in the Proposal - GM has reviewed the analytical information published as part of this proposal and identified several values to be different from the data reported in the delisting petition. It may be that some of the delisting values are different as a result of revisions to the DRAS model, however, we present these potential errors for your consideration.

*[table deleted]*

In addition, tetrachloroethene is listed in Table 1 but not in Table A. For consistency, GM suggests that Table A be revised to incorporate the data for tetrachloroethene or that it be removed from Table 1. (GM)(AAM)

Response: IDEM agrees and has incorporated this information in the draft rule.